

What is claimed is:

1. A method of recovering a catalytic metal from a catalytic metal colloid containing composition comprising:
 - a) concentrating the catalytic metal colloid on a filter; then
 - b) removing the catalytic metal of the catalytic metal colloid from the filter with an oxidizer; and then
 - c) collecting the catalytic metal.
2. The method of claim 1, wherein the oxidizer is an acid solution.
3. The method of claim 2, wherein the acid comprises nitric acid, sulfuric acid, hydrochloric acid, acetic acid or mixtures thereof.
4. The method of claim 2, wherein the acid solution comprises hydrogen peroxide.
5. The method of claim 1, wherein a weight ratio of non-catalytic metal to catalytic metal of the colloid is reduced to from about 40% to about 95% of the weight ratio after filtering the composition.
6. The method of claim 1, wherein the filter entraps at least about 65% by weight of the catalytic metal colloid in the composition.
7. The method of claim 6, wherein the filter entraps from about 75% to about 95% by weight of the catalytic metal colloid in the composition.
8. The method of claim 5, wherein the non-catalytic metal colloid component comprises tin.
9. The method of claim 1, wherein the catalytic metal comprises copper, beryllium, aluminum, tungsten, tellurium, nickel, silver, germanium, molybdenum, selenium, rhodium, osmium, iridium, ruthenium, lead, magnesium, gold, platinum, palladium, or mixtures thereof.
10. The method of claim 9, wherein the catalytic metal comprises gold, rhodium, platinum or palladium.
11. The method of claim 1, wherein the filter comprises a thermoplastic polymer, hydrophilic material, activated carbon, silica gel, alumina, silica-alumina, silicon carbide, zirconium silicate, diatomaceous earth, or mixtures thereof.
12. The method of claim 11, wherein the thermoplastic polymer comprises polyolefins, polyamides, polyesters, polycarbonate, polystyrene, thermoplastic elastomers or blends and copolymers thereof.

13. The method of claim 1, further comprising the step of rinsing the filter with an aqueous wash after entrapping the catalytic metal colloid to rinse non-catalytic metal colloid components from the filter.

14. The method of claim 1, wherein the catalytic metal colloid containing composition comprises an aqueous rinse or dragout bath from a printed circuit board.

15. The method of claim 14, wherein the catalytic metal colloid comprises from about 0.0001% by weight to about 0.05% by weight of the composition.

16. The method of claim 1, wherein the catalytic metal is collected on an adsorbent.

17. The method of claim 16, wherein the adsorbent comprises a nonionic acrylic based amine-borane reducing resin, a nonionic polystyrene based amine-borane resin, a nonionic acrylic based phosphine-borane resin, a nonionic polystyrene based phosphine-borane resin, a lipophilic thiacrown ether, a thiacrown ether carboxylic acid, thiacrown polyacrylamide, thiacrown polyacrylic acid, thiacrown polyhydroxypropylacrylate, chiral crown ethers, diaza crown ethers, or mixtures thereof.

18. The method of claim 17, wherein the adsorbent comprises activated carbon, alumina, silica-alumina, silicon carbide, zirconium silicate, diatomaceous earth or silica gel.

19. The method of claim 16, further comprising the step of burning the adsorbent to recover the catalytic metal.

20. A method of recovering palladium metal from a tin/palladium catalytic metal colloid containing composition comprising:

- concentrating the tin/palladium catalytic metal colloid on a filter; then
- removing the palladium metal of the tin/palladium catalytic metal of the catalytic metal colloid from the filter with an oxidizer solution, the oxidizer solution comprising nitric acid, sulfuric acid, hydrochloric acid or mixtures thereof and hydrogen peroxide; then
- collecting the palladium metal on an adsorbent, the adsorbent comprising an amine borane resin or a thiacrown ether; and then
- burning the adsorbent with the palladium metal to recover the palladium metal.